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(54) Title: METHOD FOR ENHANCING CELLULOSE AND MODIFYING LIGNIN BIOSYNTHESIS IN PLANTS

(57) Abstract: This invention relates to polynucleotide molecules encoding cellulose synthase, promoters of cellulose synthase and cellulose synthase polypeptides, methods for genetically altering cellulose and lignin biosynthesis, and methods for improving strength properties of juvenile wood and fiber in trees. The invention further relates to methods for identifying regulatory elements in a cellulose synthase promoter and transcription factors that bind to such regulatory elements, and to methods for augmenting expression of polynucleotides operably linked to a cellulose synthase promoter.